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Amendment and/or Response
Reply to Office action of 3 September 2008

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Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) Circuit arrangement for operating a high pressure discharge lamp comprising

[[-]] input terminals for connection to a supply voltage source,

[[-]] a DC-DC-converter coupled to the input terminals for generating a DC current out of a supply voltage supplied by the supply voltage source, ~~and comprising~~ including [[-]] a control loop for controlling the DC current at a value that is represented by a reference signal Sref, [[-]] a control circuit for adjusting the reference signal Sref, and [[-]] an output capacitor, and

[[-]] a commutator for commutating the DC current and comprising lamp connection terminals,

~~characterized in that wherein~~ the control circuit comprises means for adjusting the reference signal Sref in dependency of the amplitude of a periodical voltage that is present across the output capacitor and is caused by the commutation of the DC current.

2. (Original) Circuit arrangement according to claim 1, wherein the control circuit comprises circuitry for generating a signal Scorr that represents the momentary amplitude of an AC voltage across the output capacitor and circuitry for subtracting the signal Scorr from the reference signal Sref.

3. (Original) Circuit arrangement according to claim 2, wherein the signal Scorr is proportional to the momentary amplitude of the AC voltage across the output capacitor.

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4. (Original) Circuit arrangement according to claim 3, wherein the circuit arrangement is equipped with circuitry for adjusting the ratio between the signal S_{corr} and the momentary amplitude of the AC voltage across the output capacitor in dependency of the age of the lamp.

5. (Original) Circuit arrangement according to claim 4, wherein the circuit arrangement is equipped with circuitry for adjusting the ratio between the signal S_{corr} and the momentary amplitude of the AC voltage across the output capacitor in dependency of the lamp voltage.

6. (Currently amended) Circuit arrangement according to claim 1, wherein the control circuit comprises

[[-]] a first circuit part for generating a signal S_{corr} that represents the peak amplitude of the overshoot voltage across the output capacitor,

[[-]] a second circuit part for modulating the reference signal S_{ref} at a modulation frequency that equals the frequency of the commutation of the DC current by subsequently [[-]] decreasing the reference signal S_{ref} by an amount ΔS_{ref} during a first time interval Δt_1 that starts a second time interval Δt_2 before each commutation of the DC current, [[-]] maintaining the reference signal at the decreased value during a third time interval Δt_3 , and [[-]] increasing the reference signal S_{ref} by an amount ΔS_{ref} during a fourth time interval Δt_4 , and

[[-]] a third circuit part for adjusting at least one parameter chosen from the group formed by ΔS_{ref} , Δt_1 , Δt_2 , Δt_3 and Δt_4 so that the amplitude of the signal S_{corr} is minimal.

7. Circuit arrangement according to claim 6, wherein the third circuit part comprises means for increasing and decreasing the value of the parameter until the amplitude of the signal S_{corr} is minimal.

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8. (Previously presented) Circuit arrangement according to claim 6, wherein the third circuit part comprises means for adjusting at least 2 parameters chosen from the group formed by ΔS_{ref} , Δt_1 , Δt_2 , Δt_3 and Δt_4 so that the amplitude of the signal S_{corr} is minimal.

9. (Original) Circuit arrangement according to claim 8, wherein the third circuit part comprises means for adjusting the parameters ΔS_{ref} , Δt_1 and Δt_3 so that the amplitude of the signal S_{corr} is minimal.

10. (Previously presented) Circuit arrangement according to claims 6, wherein the third circuit part comprises a microcontroller.

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